

## Model : RT-3000/RG-2000

Semi-automatic 4 point probe sheet resistance/resistivity measurement system



**High performance & Wide range semi-automatic measurement system**  
**Programmable & arbitrary pattern for round & square shape**

### Features

- Multi-points measurement and Mapping display
  - 2-D map / 3-D map graphic display
  - Multipoint pattern measurement is programmed (maximum 1225 points) and random pattern is programmable by operator.
- Film thickness conversion function from sheet resistance
- Measurement data base link with Excel via CSV format file
- 2 types measuring tester (\*Choose 1 type from followings)
  1. RT-3000(S) : Standard type
  2. RT-3000(H) : High range resistivity meas. type
- Complies with the following ASTM & JIS
  - <JIS> JIS H 0602-1995, JIS K 7194-1994
  - <ASTM> ASTM F 84-99(SEMI MF84),  
ASTM F 374-00a, ASTM F 390-11,  
ASTM F 1529-97

### Applications

- Semiconductor materials, Solar-cell materials (Silicon, Polysilicon, SiC etc)
- New materials, functional materials (Carbon nanotube, DLC, graphene, Ag nanowire etc)
- Conductive thin film (Metal, ITO etc)
- Diffused sample (or layer)
- Silicon-related epitaxial materials, Ion-implantation sample
- Others (\*Please contact us for details)

### Sample Sizes

Size : ~ 8 inch, ~ 156x156mm

Thickness : ~ 2mm

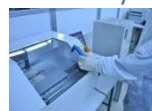
**\*Option [Large size stage: Model RG-3000];**

Size : ~ 12 inch, ~ 210x210mm

### Measurement Range

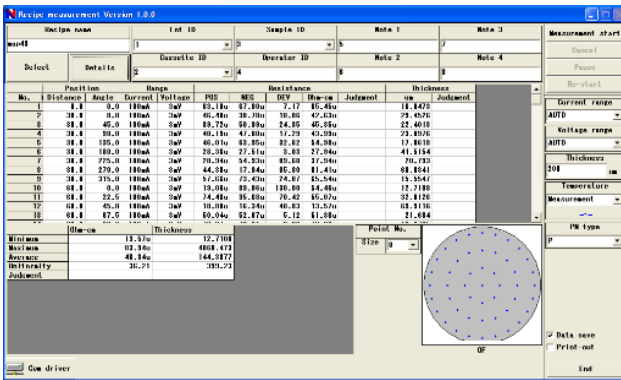
Test Item	Meas. Range : RT-3000(S)	Meas. Range : RT-3000(H)
V/I Ratio	1m ~ 3M ohm	10m ~ 250M ohm
Sheet resistance	1m ~ 10M ohm/sq	10m ~ 1G ohm/sq
Resistivity (*Total range by Bulk, Layer & Slice mode)	1 $\mu$ ~ 1M ohm.cm	-

A global leading company for resistivity measurement system.

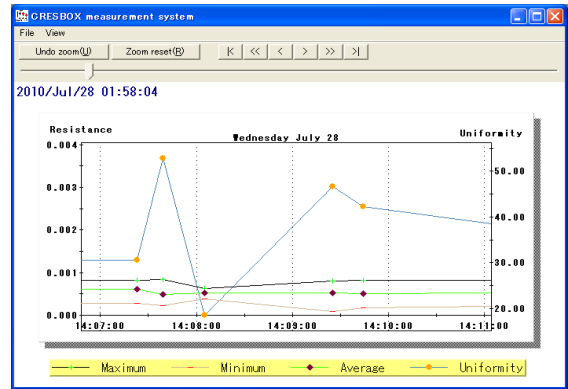


# Software Function

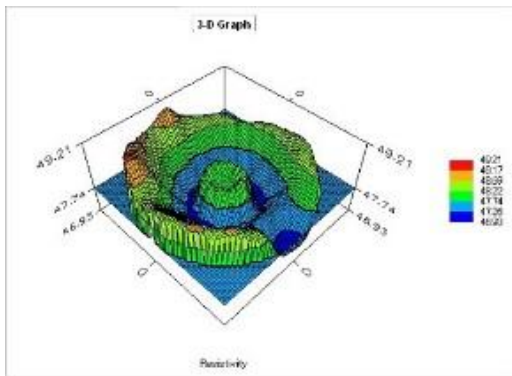
- Measurement result can be displayed by 2-D / 3-D map graphic.
- Mapping graphic can be saved by JPEG file.
- SPC Chart display function.



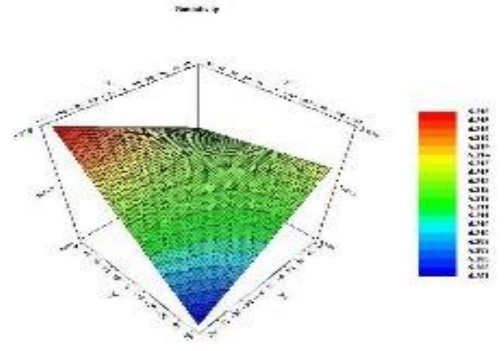
Software : Main



SPC Chart display



3-D map graphic (Round)



3-D map graphic (Square)

## Measurement Accuracy / Repeatability

### Measurement Accuracy

$$\%BIAS < \pm 1\%$$

$$\%BIAS = \frac{\bar{X} - NIST\text{guaranteedvalue}}{NIST\text{guaranteedvalue}} \times 100[\%]$$

$\bar{X}$  ----- Average of same point x 10times measurement(23°C)

### Measurement Repeatability

$$CV \leq 0.2\%$$

$$CV = \frac{\sigma}{\bar{X}} \times 100[\%]$$

$\sigma$  ----- Standard deviation of same point

x 10times measurement(23°C)

$\bar{X}$  ----- Average of same point x 10times measurement(23°C)

\*Uses NIST and/or VLSI standard wafer for guarantee above items.

\*Please contact us for more details.

\*The customers are always welcome to do Demo measurement.

\*Specification subject to change without notice.